

What is claimed is:

1. A monoclonal antibody which reacts only with asialo  $\alpha$ 1-acid glycoprotein and excludes heptoglobin and  $\alpha$ 2-macroglobulin.
- 5 2. The monoclonal antibody according to claim 1, which is a subclass type IgG<sub>1</sub>.
3. A cell line which produces in a large scale a monoclonal  
10 antibody reacting only with asialo  $\alpha$ 1-acid glycoprotein and excluding heptoglobin and  $\alpha$ 2-macroglobulin.
4. The cell line according to claim 3, which is prepared by fusing a spleen cell and a myeloma cell extracted from a mouse  
15 immunized with asialo  $\alpha$ 1-acid glycoprotein.
5. The cell line according to claim 4, which produces the subclass type IgG<sub>1</sub> monoclonal antibody specific for asialo  $\alpha$ 1-acid glycoprotein and is deposited to Korea Research Institute of  
20 Bioscience and Biotechnology, Gene Bank in May 24, 2004 (accession number KCTC 10349 BP) under Budapest Treaty.
6. A method for diagnosing a liver disease in which a monoclonal antibody which reacts only with asialo  $\alpha$ 1-acid

glycoprotein and excludes heptoglobin and  $\alpha$ 2-macroglobulin; and lectin RCA (Ricinus communis agglutinin) recognizing asialo glycoprotein are reacted with a test sample to measure the amount of asialo  $\alpha$ 1-acid glycoprotein (AsAGP).

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7. The method for diagnosing a liver disease according to claim 6, in which the monoclonal antibody is the subclass IgG<sub>1</sub> produced from the mouse cell line deposited with the accession number KCTC 10261 BP.

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8. The method for diagnosing a liver disease according to claim 6, in which the test sample is blood or serum.

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9. An diagnostic strip for immunochromatography which comprises a monoclonal antibody reacting only with asialo  $\alpha$ 1-acid glycoprotein excluding heptoglobin and  $\alpha$ 2-macroglobulin; and RCA recognizing asialo glycoprotein as a lectin; and reacts a test sample at over 1.50  $\mu$ g/ml of asialo  $\alpha$ 1-acid glycoprotein to detect a liver disease.

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10. The diagnostic strip for immunochromatography according to claim 9, in which the monoclonal antibody is As 16.89 deposited with the accession number KCTC 10261 BP.

11. The diagnostic strip for immunochromatography according to claim 9, in which the monoclonal antibody is conjugated with a micro-particle such as colloid type gold particle.

5 12. The diagnostic strip for immunochromatography according to claim 11, which comprises (1) glass fiber (GF) coated with micro-particles conjugated with the monoclonal antibody; (2) nitrocellulose membrane (NC) including a standard line and a  
10 test sample; (3) a sample pad for a test sample; (4) an absorbent pad for non-reactive substance; and (4) an adhesive plastic backing for mounting above-mentioned members.

13. The diagnostic strip for immunochromatography according to  
15 claim 12, in which NC membrane, GF membrane, a sample pad and an absorbent pad are partially overlaid on said adhesive plastic backing in due turn to transfer substance by capillary reaction and an RCA band as a diagnostic line and an antibody band as a standard line are separated in some interval.

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14. The diagnostic strip for immunochromatography according to claim 9, in which said test sample is blood or serum 10-folds diluted by using an elution buffer.

15. The diagnostic strip for immunochromatography according to claim 14, in which said elution buffer is 50 mM of borate buffer containing 5% sucrose, 1% bovine serum albumin or 1% Triton X-100.

5 16. The diagnostic strip for immunochromatography according to claim 9, in which a standard line and a diagnostic line are colored on said strip to indicate positive for a hepatic disease.

17. The diagnostic strip for immunochromatography according to  
10 claim 9, which is a cassette type.

18. The diagnostic strip for immunochromatography according to claim 9, which is a stick type.

15 19. A diagnostic kit for immunochromatography which comprises a monoclonal antibody reacting only with asialo  $\alpha$ 1-acid glycoprotein and excluding heptoglobin and  $\alpha$ 2-macroglobulin; RCA (Ricinus communis agglutinin) recognizing asialo glycoprotein as a lectin; and reacts a test sample at over 1.50  $\mu$ g /ml of asialo  $\alpha$   
20 1-acid glycoprotein to detect a liver disease.

20. The diagnostic kit for immunochromatography according to claim 19, in which the monoclonal antibody is As 16.89 deposited with the accession number KCTC 10261 BP.